



# Manual 01 Changes – Revision 30

Real Time Data Management Department  
SOS May 2015

	1st	2nd	3rd	4th
March		SIS		
April		SIS (4/15)		SOS (4/29)
May	OC (5/5)	SIS (5/13)		SOS
June	OC		MRC	
July	OC		MRC	
August				
September				

## Major reorganization of Section 5: Metering Requirements

- PJM members initiated. Request was for more clarity and structure.
- The revision attempts to rewrite and reorganize without actually changing the existing requirements.
- Where the present text is possibly ambiguous on certain topics, and the ambiguity is resolved in the revision, PJM's original and existing intent will be made plain and clear.

## 5.1 PURPOSE & CRITERIA

## 5.2 GENERAL GUIDELINES

## 5.3 PRIMARY METERING REQUIREMENTS

5.3.1 Accuracy

5.3.2 Backup Metering Requirements

5.3.3 Location of Meter Points

5.3.4 Alternative Approach

5.3.5 Tie Line Telemetry Specification

5.3.6 Geographically Non-Contiguous Load

5.3.7 Maintenance

## 5.4 METER ACCURACY STANDARDS

5.4.1 Purpose

5.4.2 General Guidelines

5.4.3 Primary Metering Accuracy

## 5.5 SYSTEM CONTROL MONITORING REQUIREMENTS

5.5.1 System Control Data

5.5.2 Area Regulation

5.5.3 Dispatch Data

5.5.4 Reserve Data

## 5.1 PURPOSE & CRITERIA

### 5.1.1 Types of Meters

## 5.2 SYSTEM CONTROL AND MONITORING (Instantaneous Data)

### 5.2.1 System Control Data (Balancing)

### 5.2.2 Transmission Operations Meters

### 5.2.3 Area Regulation

### 5.2.4 Generation Dispatch Data

### 5.2.5 Generation Reserve

### 5.2.6 System Restoration Data

## 5.3 BILLING METERS (Accumulated Data)

### 5.3.1 Generation Billing Metering

### 5.3.2 Small Energy Billing Metering

### 5.3.3 Primary Metering Accuracy

### 5.3.4 Backup Meter Requirements

### 5.3.5 Location of PJM Mid-Atlantic 500kV Meter Points

#### 5.3.4.1 Measuring Point Compensation

### 5.3.6 Geographically Non-contiguous Load

### 5.3.7 Maintenance

- “Tracking Changes” is not going to be sufficient, because the volume and breadth of change renders it nearly unreadable. Instead pondering an “A to B” comparison to put all changes into context.
- Better consistency with language and ties to other Manuals.

- Other changes beyond Section 5 include:
  - Removed requirement for status telemetry for fixed-tap transformer tap settings.
  - Added a minimum required size and recommended size phasor data storage in section 3.3.2 Synchrophasor Data Exchange.
  - Added ICCP ObjectID requirements to Section 5.3.5 Tie Line Telemetry Specification and Requirements
  - Added monitoring of LTC tap setting in Section 3.6 Real-Time Analysis Monitoring Requirements for System Security
  - Added an entry for TO GeoMagnetic Disturbance (GMD) data submittal to the table in Appendix B: Schedule of Data Submittals.

- Rewrite of tie-line telemetry subsection
- Better inclusion of ANSI standards
- Review of technical meter requirements (calibration intervals, etc.)



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